

REMARKS

Attached is a clean set of all claims, as well as a marked up version of the amended claims. The claims have been amended to eliminate multiple dependency and to place them in better form for U.S. practice. Favorable action on the application is solicited.

Respectfully submitted,

KEIL & WEINKAUF



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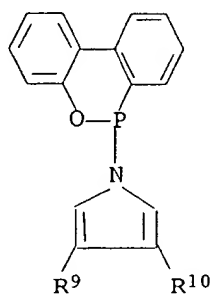
1101 Connecticut Avenue, N.W.
Washington, D.C. 20036
(202) 659-0100

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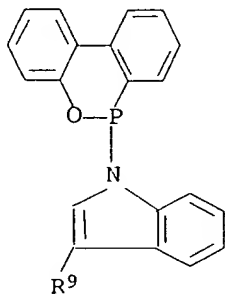
VERSION WITH MARKINGS TO SHOW CHANGES MADE

Amend claims 4 - 10 as follows:

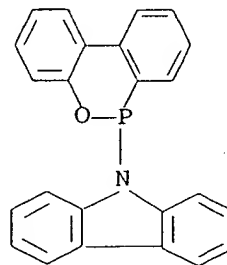
4. (amended) A catalyst as claimed in [any of the preceding claims] claim 1, wherein the phosphinamidite ligand is selected from among the ligands of the formulae IIIa to IIIi



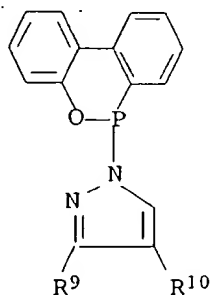
(IIIa)



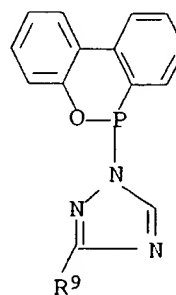
(IIIb)



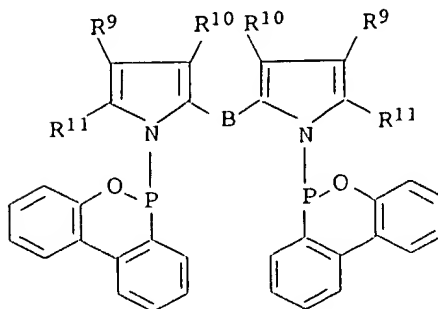
(IIIc)



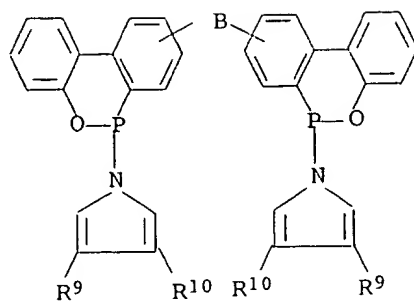
(IIId)



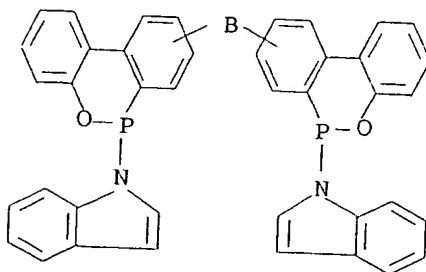
(IIIe)



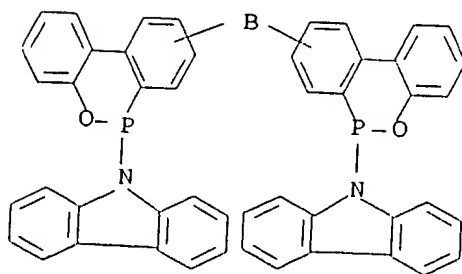
(IIIIf)



(IIIg)



(IIIh)



(IIIi)

where

R^9 and R^{10} are, independently of one another, hydrogen, methyl, ethyl or trifluoromethyl,

R^{11} is hydrogen or COOC_2H_5 ,

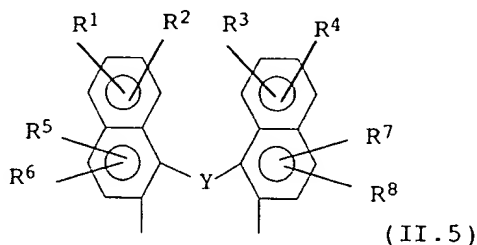
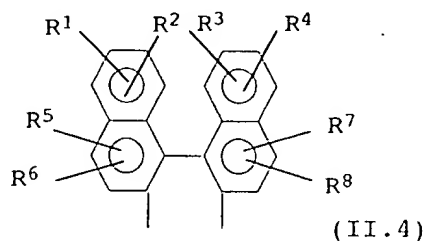
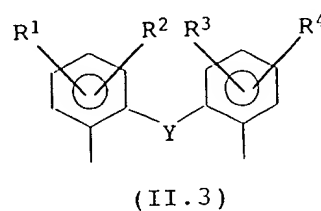
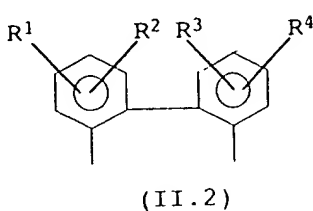
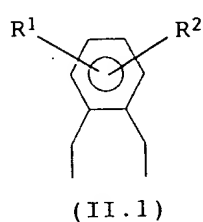
B is CH_2 , $\text{C}(\text{CH}_3)_2$, $(\text{CO})-(\text{CO})$ or $(\text{CO})-\text{D}-(\text{CO})$,

where B in the formulae IIIg, IIIh and IIIi can in each case be bound in the o,o positions, m,m positions or p,p positions relative to the phosphorus atoms and

D is a $\text{C}_1\text{-C}_{10}$ - alkylene bridge [as defined in claim 2 or 3] which may have one, two, three or four double bonds and/or bear one, two, three or four substituents selected from among alkyl, alkoxy, halogen, nitro, cyano, carboxyl, carboxylate, cycloalkyl and aryl, where the aryl substituent may additionally bear one, two or three substituents selected from among alkyl, alkoxy, halogen, trifluoromethyl, nitro, alkoxycarbonyl or cyano, and/or the alkylene bridge D may be interrupted by one, two or three nonadjacent, substituted or unsubstituted heteroatoms, and/or the alkylene bridge D may have one, two or three aryl and/or hetaryl groups fused onto it, where the fused-on aryl and hetaryl groups may each bear one, two or three substituents selected from among alkyl, cycloalkyl, aryl, alkoxy, cycloalkoxy,

aryloxy, aryl, halogen, trifluoromethyl, nitro, cyano, carboxyl, alkoxy carbonyl and NE^1E^2 , where E^1 and E^2 may be identical or different and are each alkyl, cycloalkyl or aryl, or

D is a radical of the formula II.1, II.2, II.3, II.4 or II.5



where

Y is O, S, NR^9 , where

R^9 is alkyl, cycloalkyl or aryl,

or Y is a C_1 - C_3 -alkylene bridge which may have a double bond and/or an alkyl, cycloalkyl- or aryl substituent, where the aryl substituent may bear one, two or three substituents

selected from among alkyl, alkoxy, halogen, trifluoromethyl, nitro, alkoxycarbonyl and cyano,

or Y is a C₂-C₃-alkylene bridge which is interrupted by O, S or NR⁹,

R¹, R², R³, R⁴, R⁵, R⁶, R⁷ and R⁸ are, independently of one another hydrogen, alkyl, cycloalkyl, aryl, alkoxy, halogen, trifluoromethyl, nitro, alkoxycarbonyl or cyano.

5. (amended) A catalyst as claimed in [any of the preceding claims] claim 1, wherein the metal of transition group VIII is selected from among cobalt, ruthenium, iridium, rhodium, nickel, palladium and platinum.

6. (amended) A catalyst as claimed in [any of the preceding claims] claim 1 which further comprises at least one further ligand selected from among halides, amines, carboxylates, acetylacetonate, arylsulfonates or alkylsulfonates, hydride, CO, olefins, dienes, cycloolefins, nitriles, N-containing heterocycles, aromatics and heteroaromatics, ethers, PF₃ and monodentate, bidentate and multidentate phosphine, phosphinite, phosphonite and phosphite ligands.

7. (amended) A process for the hydroformylation of compounds which contain at least one ethylenically unsaturated double bond by reaction with carbon monoxide and hydrogen in the presence of

a hydroformylation catalyst, wherein the hydroformylation catalyst used is a catalyst as claimed in [any of claims 1 to 6] claim 1.

8. (amended) A process for the hydrocyanation of compounds containing at least one ethylenically unsaturated double bond by reaction with hydrogen cyanide in the presence of a hydrocyanation catalyst, wherein the hydrocyanation catalyst used is a catalyst as claimed in [any of claims 1 to 6] claim 1.

9. (amended) A process as claimed in claim 7 [or 8], wherein the hydroformylation catalyst or the hydrocyanation catalyst is prepared in situ by reacting at least one phosphinamidite ligand [as defined in any of claims 1 to 6], a compound or a complex of a metal of transition group VIII and, if desired, an activator in an inert solvent under the hydroformylation conditions or the hydrocyanation conditions.

10. (amended) The use of a catalyst comprising a phosphinamidite ligand as claimed in [any of claims 1 to 6] claim 1 for the hydroformylation or hydrocyanation of compounds having at least one ethylenically unsaturated double bond.